AMENDMENTS IN THE CLAIMS:

1. (Original) An evaluating apparatus comprising a digital filter for filtering a signal in accordance with one or more tap coefficients of the digital filter,

the evaluating apparatus further comprising:

a detecting section for detecting an index to be used for evaluating quality of the signal based on the filtered signal; and

a controlling section for controlling the one or more tap coefficients of the digital filter to be within a predetermined range such that a value of the detected index includes an optimal value of the index.

2. (Original) An evaluating apparatus according to claim 1, wherein the digital filter includes a plurality of taps, and

the controlling section controls a plurality of tap coefficients of the plurality of taps such that the plurality of taps such that the plurality of tap coefficients are symmetrical.

3. (Original) An evaluating apparatus according to claim 1, further comprising:

a maximum likelihood decoding section for performing a maximum likelihood decoding on the filtered signal and for generating a decoded signal indicating a result of the maximum likelihood decoding, wherein

the detecting section detects the index based on the filtered signal and the decoded signal,

the digital filter includes a first tap, a second tap, a third tap, a fourth tap, and a fifth tap, and

the controlling section controls tap coefficient k_0 of the first tap, tap coefficient k_1 of the second tap, tap coefficient k_2 of the third tap, tap coefficient k_3 of the fourth tap, and tap coefficient k_4 of the fifth tap, in accordance with the following Expressions 14, 15, and 16:

Expression 14:

$$k_0 = k_4 = \frac{1}{6 + 2(\frac{1}{r} + r) + r^2 + \frac{1}{r^2}}$$

Expression 15:

$$k_1 = k_3 = \frac{2(\frac{1}{r} + r)}{6 + 2(\frac{1}{r} + r) + r^2 + \frac{1}{r^2}}$$

Expression 16:

$$k_2 = \frac{4 + r^2 + \frac{1}{r^2}}{6 + 2(\frac{1}{r} + r) + r^2 + \frac{1}{r^2}}$$

where a frequency characteristic of the digital filter is controlled by r parameter.

4. (Original) An evaluating apparatus according to claim 3, wherein a relationship of $0.21 \leq r \leq 0.27$ is satisfied.

5. (Original) An evaluating method comprising the steps of:
filtering a signal in accordance with one or more tap coefficients of a digital filter;
detecting an index to be used for evaluating quality of the signal based on the filtered signal; and
controlling the one or more tap coefficients of the digital filter to be within a predetermined range such that the detected index includes an optimal value of the index.

6. (New) An evaluating apparatus for evaluating quality of a signal, comprising:
a maximum likelihood decoding unit for performing a maximum likelihood decoding on the signal and generating a decoded signal indicating a result of the maximum likelihood decoding;

a detecting unit for detecting an index to be used for evaluating the quality of the signal based on the signal and the decoded signal; and

an amplitude controlling unit for controlling an amplitude of the signal such that a value of the detected index approaches an optimal value of the index.

7. (New) An evaluating method for evaluating quality of a signal, comprising the steps of:

performing a maximum likelihood decoding on the signal and generating a decoded signal indicating a result of the maximum likelihood decoding;

detecting an index to be used for evaluating the quality of the signal based on the signal and the decoded signal; and

controlling an amplitude of the signal such that a value of the detected index approaches an optimal value of the index.